ASTRONOMY & ASTROPHYSICS

SUPPLEMENT SERIES

A EUROPEAN JOURNAL

VOLUME 9

JANUARY 1973 - MARCH 1973

Astronomy & Astrophysics Supplement Series

A European Journal

Scientific organizations in Belgium, France, Germany, Italy, the Netherlands, the Scandinavian countries, and Switzerland are combining their efforts in this enterprise with the administrative support of the European Southern Observatory (ESO). These scientific organizations have appointed the

Board of Directors

Chairman: A. Blaauw *(ESO)*
Vice Chairman: H. Elsässer, *Germany*
Secretary and Treasurer: J. L. Steinberg, *France*

Y. Andrillat, *France*
L. Biermann, *Germany*
H. G. van Bueren, *The Netherlands*
H. C. van de Hulst, *The Netherlands*
J. Kovalevsky, *France*
P. O. Lindblad, *Sweden*
A. Reiz, *Denmark*
L. Rosino, *Italy*
E. Schatzman, *France*
G. Setti, *Italy*
U. Steinlin, *Switzerland*
A. Unsöld, *Germany*
A. G. Velghe, *Belgium*

Editors-in-Chief 1973-1976

S. R. Pottasch
Kapteyn Astronomical Institute
P.O. Box 800
Groningen 8002, *The Netherlands*

J. Heidmann
Observatoire de Meudon
F-92 Meudon, *France*

Managing Editor

B. Hauck
Institut d'Astronomie de
l'Université de Lausanne et
Observatoire de Genève
CH-1290 Sauverny, *Switzerland*

Board of Editors

K. Bahner, *Heidelberg*
J. E. Baldwin, *Cambridge*
B. Baschek, *Heidelberg*
W. Becker, *Basel*
E. J. Blum, *Meudon*
K. H. Böhm, *Seattle*
J. Borgman, *Roden*
E. M. Burbidge, *Hailsham*
G. M. Clemence, *New Haven*
O. J. Eggen, *Woden*
W. Fricke, *Heidelberg*
V. L. Ginzburg, *Moscow*
M. Hénon, *Nice*
J. T. Jefferies, *Honolulu*
F. D. Kahn, *Manchester*
F. Kerr, *Maryland*
K. O. Kiepenheuer, *Freiburg*
R. Kippenhahn, *Göttingen*
H. van der Laan, *Leiden*
G. Larsson-Leander, *Lund*
P. Ledoux, *Liège*
J. Lequeux, *Meudon*
L. Mestel, *Manchester*
P. G. Mezger, *Bonn*
B. Morando, *Paris*
F. Pacini, *Frascati*
B. E. J. Pagel, *Hailsham*
L. Plaut, *Groningen*
F. Praderie, *Meudon*
M. S. Roberts, *Green Bank*
M. Schmidt, *Pasadena*
F. Spite, *Meudon*
A. B. Underhill, *Goddard Space Flight Center*
H. van Regemorter, *Meudon*
L. Woltjer, *New York*
J. P. Zahn, *Nice*
C. Zwaan, *Utrecht*

Published by the Astronomical Institute Lausanne and Geneva Observatory, Switzerland, on behalf of the Board of Directors

Copyright © by the European Southern Observatory (ESO)

Printed by Imprimeries Réunies, Lausanne, Switzerland

CONTENTS

H. J. Fogh Olsen in collaboration with P. Jensen and T. Knudsen
Meridian observations made in Brorfelde (Copenhagen University Observatory) 1967–1969. Positions of 2246 stars brighter than 11.0 vis. mag. 1

R. M. Humphreys
Spectroscopic and photometric observations of luminous stars in Carina-Centaurus ($\ell = 282°$–$305°$) 85

N. Vogt and A. F. J. Moffat
Southern open star clusters. II. *UBV* — Hβ photometry of 11 clusters between galactic longitudes 259° and 280° 97

H. Hubert
Variation or disappearance of the emission in 8 Be stars 133

A. M. van Genderen
Five-colour observations of the short-period pulsating star δ Del 149

A. M. van Genderen
Photoelectric five-colour observations of W Serpentis 157

A. Ardeberg, K. Särg and S. Wramdemark
Photoelectric *UBV* photometry in four areas of intermediate-high galactic latitude 163

G. Welin
Hα-emission stars in and near NGC 7000 183

P. L. Selvelli
Equivalent widths for γ Cap and the standard 30 L Mi 199

A. Wittmann
The line dispersion function for enhanced damping 209

W. L. Sanders
Membership of the open cluster NGC 6633 213

W. L. Sanders
Membership of the open cluster NGC 6913 (M29) 221

J. Lindoff
The open cluster NGC 2527 229

A. Feinstein, H. G. Marraco and I. Mirabel
Photometric study of the open cluster NGC 2516 23

J. J. Clariá
Photometric study of the galactic cluster NGC 2335 25

S. M. Hassan
Three colour photometry of the five open clusters NGC 7039, NGC 7062, NGC 7067, NGC 7082, IC 1369 26

W. G. L. Pöppel and E. R. Vieira
Calibration profiles for observations in the 21 cm line 28

M. P. FitzGerald
Error analysis of the photoelectric catalogue 29

B. F. Jones
Relative proper motions of faint stars in the Pleiades 3

L. Rosino
Novae in M 31 discovered and observed at Asiago from 1963 to 1970 3

Aa. Sandqvist
Lunar occultations of the galactic center region in H I, OH and H_2CO lines. I. Observations and contour maps 3

A. Schmitt
The weak-helium-line star α Sculptoris. I. The line-spectrum 4

G. Billaud
Results obtained with the Paris astrolabe. Time and latitude 1970 4

J.-P. Brunet, L. Prévot, E. Maurice and G. Muratorio
Additional observations of supergiants and foreground stars in the direction of the Large Magellanic Cloud 4